United Nations A/CN.4/487/Add.1

General Assembly

Distr.: General
3 April 1998

Original: English

International Law Commission
Fiftieth session
Geneva, 20 April-12 June 1998
New York, 27 July-14 August 1998

First report on prevention of transboundary damage from hazardous activities

by Pemmaraju Sreenivasa Rao, Special Rapporteur

Contents

	Paragraphs	Page
Part Two. The concept of prevention: principles of procedure and content	1–110	2
I. Principles of procedure	2–60	2
A. The principle of prior authorization	2–5	2
B. The principle of international environmental impact assessment	6–21	4
C. The principles of cooperation, exchange of information, notification, consultation and negotiation in good faith	22–38	8
D. The principle of dispute prevention or avoidance and settlement of disputes	39–53	12
E. The principle of non-discrimination	54–60	16
II. Principles of content	61–110	19
A. The principle of precaution	61–72	19
B. The polluter-pays principle	73–86	22
C. The principles of equity, capacity-building and good governance	87–110	25
1. Intra-generational equity	88–92	25
2. Inter-generational equity	93–98	27
3. Capacity-building	99–102	30
4. Good governance	103–110	32
Part Three. Conclusions	111–120	35

98-09454 (E) 040598

Part Two
The concept of prevention: principles of procedure and content

1. Given the nature of the concept of prevention and the clarification of the scope of the topic presented in part one, a regime of prevention of significant transboundary harm arising out of dangerous activities could be organized around several principles of procedure and content. Principles of procedure might include those of: (a) prior authorization; (b) environmental impact assessment; (c) notification, consultation and negotiation; (d) the principles of dispute prevention or avoidance and settlement; and (e) non-discrimination. The principles of content might include those of: (a) precaution; (b) polluter-pays; and (c) equity, capacity-building and good governance.

I. Principles of procedure

A. The principle of prior authorization

2. The duty not to cause significant transboundary harm and to prevent any such harm carries with it the requirement that activities bearing such risk should not be allowed by a State within its territory without its prior authorization. The requirement of prior authorization is thus an important element of the principle of prevention.[1]

3. This requirement was identified by Barboza when he presented article 16 in his sixth report which dealt with unilateral preventive measures. It was repeated in his subsequent reports. However, starting with his ninth report, he dealt with the principle of prior authorization in a separate and independent article to highlight its importance. Thus, article 11 provisionally adopted by the Commission in 1994 stated:

> "States shall ensure that activities referred to in article 1 are not carried out in their territory or otherwise under their jurisdiction or control without their prior authorization. Such authorization shall also be required in case a major change is planned which may transform an activity into one referred to in article 1."[2]

---

[1] The requirement of prior authorization differs from the requirement of prior informed consent. The latter was developed in the context of the export of hazardous wastes or chemicals or other substances from one country to another. It provides that the importing State must give its consent before the hazardous product is exported from the country of origin. Such consent should be sought and received by the entities concerned by providing to the importing State full information on the product with a view to safeguarding the health and environment of the importing State. In the case of export of dangerous or hazardous substances, it is also provided that the country of origin should, as far as possible, ascertain before such export that the country of import has the necessary means and capacity to treat and deal with the hazardous substance intended for export. The prior informed consent requirement was used in non-binding instruments elaborated in the framework of the United Nations Environment Programme (UNEP) and the Food and Agriculture Organization of the United Nations (FAO) and integrated into legally binding arrangements for international trade in hazardous wastes, such as the 1989 Basel Convention, the 1991 Bamako Convention and the 1993 European Community (EC) Regulations. For these and other considerations, see G. Handl and R. E. Lutz, *Transferring Hazardous Technologies and Substances: International Legal Challenge* (Graham and Trotman/Martinus Nijhoff, 1989); see also P. Sands, *Principles of International Environmental Law: Frameworks, Standards and Implementation* (Manchester University Press, 1995), pp. 464-467.

[2] *Yearbook ... 1994*, vol. II (Part Two), p. 159.

4. The same text was adopted as article 9 by the Working Group in 1996. The requirement of prior authorization implies that the granting of such authorization is subject to the fulfilment of necessary conditions and qualifications to ensure that the risk involved is properly assessed, managed and contained. It is up to each State to freely choose and prescribe methods and means to make this determination before granting the authorization. In addition, the requirement of prior authorization would also oblige States to put in place an appropriate monitoring machinery to ensure that the risk-bearing activity is conducted within the limits and conditions prescribed at the time it is authorized. For this purpose, States are required to adopt necessary legislative and administrative requirements. Such legislation could indicate the type of activities which would require prior authorization from the State.[3]

5. The requirement of prior authorization and the consequent requirement of seeking an environmental impact assessment statement would also apply in the case of any major change contemplated in the proposed activity after the granting of authorization which might transform the activity into one creating a significant risk of transboundary harm. This has been, in particular, provided under article 1(v) of the 1991 Convention on Environmental Impact Assessment in a Transboundary Context. However, the Convention did not define the concept of "major change", and the decision on the applicability of that instrument will therefore be partly based on judgement. The basic criterion could be that the existing activity subject to a major change is included in appendix I to the Convention and that authorization from a competent authority is required for that change.[4] The following are some examples of major changes: building of additional production capacities, large-scale employment of new technology in an existing activity, re-routeing of motorways, express roads or an airport runway changing the direction of takeoff and landing. Consideration would also have to be given to a change in investments and production (volume and type), physical structure or emissions. It is also suggested that it would be worthwhile to examine cases where the major change would represent an increase of the same magnitude as the threshold specified in appendix I to the Convention or of a threshold proposed as appropriate. Particular

[3] See the commentary for article 11 on the requirement of prior authorization, in ibid., p. 166. It may be noted that the Working Group proposed in its commentary that the requirement of prior authorization should be considered as creating a presumption that the activities covered by the draft articles are taking place in the territory or otherwise under the jurisdiction or control of a State with the knowledge of that State (*Official Records of the General Assembly, Fifty-first Session, Supplement No. 10* (A/51/10), p. 288, para. (3) of the commentary to article 9). Barboza in his sixth report proposed an article on assignment of obligation (article 3) which stipulated that the State of origin had the obligation of reparation provided that it knew or had means of knowing that a relevant activity was being or was about to be carried out in its territory or in other places under its jurisdiction or control. It further provided that unless there was evidence to the contrary, it was to be presumed that the State of origin had the knowledge or the means of knowing that activities in question were being carried out in its territory (*Yearbook ... 1990*, vol. II (Part One), p. 106, document A/CN.4/428 and Add.1). Members of the Commission had raised doubts as to the idea that the liability of a State was contingent upon the fact of knowledge or the means of establishing such knowledge. It was pointed out that such a concept of liability should be proportional to the effective control of the State or other entities operating within its control or jurisdiction and, more importantly, to the means at their disposal to prevent, minimize or redress harm. In order to take these considerations into account, particularly the circumstances of developing countries having vast territories and insufficient financial and administrative means to monitor activities in their territories, the Special Rapporteur introduced the above term "presumption" under article 3. This "presumption" is to be considered only in the case of a regime on liability, and even in that context it does give rise to some differences of opinion as to its relevance.

[4] See *Current Policies, Strategies and Aspects of Environmental Impact Assessment in a Transboundary Context* (United Nations publication, Sales No. E.96.II.E.11), p. 48.

consideration could also be given to cases where the proposed changes would bring existing activities to such thresholds.[5]

B. The principle of international environmental impact assessment

6. The duty to prevent significant transboundary harm involves the requirement of assessing whether a particular activity actually has the potential of causing such significant harm. In order to assess the potential harm involved, the practice of requiring a statement on environmental impact assessment (EIA) has become very prevalent.[6]

7. The legal obligation to conduct an environmental impact assessment under national law was first developed in the United States of America in the 1970s. Later, Canada and Europe adopted the same approach and essentially regulated it by guidelines. In 1985, a European Community directive required member States to conform to a minimum requirement of environmental impact assessment. Since then many other countries have also made EIA a necessary obligation under their national law before authorization is granted for developmental or hazardous industrial activities.[7]

8. It is desirable that the evaluation of the environmental consequences of any proposal be addressed at the earliest appropriate stage of decision-making and given the same attention as economic and social concerns. This ideally applies not only to private projects but also to those of Governments so that principles of ecological sustainability are built into key government decisions at all levels, wherever the possibility of a significant environmental impact cannot be reasonably excluded. Environmental assessment procedures for policies, plans and programmes should as much as possible reflect the principles of environmental impact assessment that are applied to projects. However, environmental assessment of a policy, plan or programme should not be a substitute for environmental impact assessment at the project level.

9. The principles of environmental assessment are usually specified in the principal Act. They may also be specified in subordinate legislation either by regulation or by administrative procedures. A large number of developing countries seem to agree that "an EIA programme is best implemented under statutory authority".[8] If the environmental assessment process is embodied in regulations, then any violation thereof is a violation of law. However, if it is embodied in administrative procedures, they may be enforceable as law only if this is clearly provided in the principal legislation. Delegated legislations such

---

[5] Ibid.

[6] Ibid., p. vii. According to one United Nations study, the EIA has already shown its value for implementing and strengthening sustainable development, as it combines the precautionary principle with the principle of preventing environmental damage and also allows for public participation.

[7] For a survey of various North American and European legal and administrative systems of EIA policies, plans and programmes, see *Application of Environmental Impact Assessment Principles to Policies, Plans and Programmes* (United Nations publication, Sales No. E.92.II.E.28), pp. 42-43; today approximately 70 developing countries have EIA legislation of some kind. Other countries either are in the process of drafting new and additional EIA legislation or are planning to do so. See M. Yeater and L. Kurukulasuriya, "Environmental Impact Assessment Legislation in Developing Countries", in Sun Lin and L. Kurukulasuriya (eds.), *UNEP's New Way Forward: Environmental Law and Sustainable Development* (UNEP, 1995), p. 259. For the format of EIA adopted in most legislations, see ibid., p. 260.

[8] See M. Yeater and Kurukulasuriya, ibid., p. 259.

as regulations, rules and by-laws are justiciable. Administrative procedures, however, are more like instructions and do not create legally enforceable obligations.[9]

10. National legislations on EIA address, in particular, the following points:

(a) The proposals or activities calling for EIA;

(b) The referral of those proposals or activities to the agency;

(c) The assessment or scoping (see para. 11) by the agency of the proposal to determine the environmental implications of that proposal or activity, including the need for an environmental impact statement (EIS);

(d) The form an EIS should take, should one be necessary;

(e) Public comment on a draft EIS;

(f) The preparation of a final EIS and dispute resolution of contentious matters arising in the course of the process;

(g) The submission of the EIS together with the comments of various bodies;

(h) The decisions and issues, such as monitoring and review requirements, to be taken into account.[10]

11. Tailoring the EIA study to the requirements of a specific activity is known as "scoping". Ideally, scoping should be a joint activity among the proponent, the Government and the public and other interested parties. More commonly, proponents are expected to prepare the report themselves or to pay its preparation by a competent, independent third party. Generally the expense of preparing EIA documents is borne by the proponent and included in the budget of a proposed activity. Similarly, environmental management costs of the activity, after authorization has been received are charged to the proponent's operational budget. The cost of reviewing the EIA documentation and supervising the proponent's implementation of the EIA results usually is borne by the Government.[11]

12. EIA legislation traditionally has been weak in providing for the follow-up to an EIA study. A survey of several national legislations revealed that in the case of such failures, they usually provide for penalties. Typical actionable offences include: failing to perform an EIA before implementing an activity; acting in contravention of the EIA process; concealing, manipulating or providing false information; and causing environmental damage. Violations of legal EIA obligations can result in temporary or permanent suspension of an activity, modification or suspension or revocation of an environmental licence, payment of a fine, compensation for damage, restoration obligations (or reimbursement of government restoration costs) or imprisonment.[12]

13. Once a significant risk of transboundary harm is assessed, as a result of an EIA or otherwise, this would trigger an obligation for the State of origin to notify States likely to be affected providing them with all available information including the results of any assessment made.[13] Giving notification in a timely fashion to the affected State or States

---

[9] See C. Herbert, "Developing Environmental Legislation for Sustainable Development in Small Island States: Some Legal Considerations from the Commonwealth Caribbean", *Commonwealth Law Bulletin*, vol. 22 (July-October 1996), pp. 1229-1230.

[10] Ibid., p. 1229-1230.

[11] See M. Yeater and Kurukulasuriya, op.cit. (footnote 7 above), pp. 263-264.

[12] Ibid., p. 267.

[13] See Part XII, section 4, of the 1982 United Nations Convention on the Law of the Sea, which deals with monitoring and environmental assessment of any risks or effects of pollution of the marine environment and the sharing of the results thereof with other States which are likely to be affected by such pollution

would expedite the process of decision-making with respect to the project involved. In any case, States likely to be affected would have the right: (a) to know what the investigations were and the results of those investigations; (b) to propose additional or different investigations; and (c) to verify for themselves the results of such investigations. Moreover, this assessment must precede any decision to proceed with the activities in question. It obligates parties to conduct a prior investigation of risks and not an evaluation of the effects of an activity after an event.[14]

14. In the case of a shared resource or where the impact assessment would require investigations not only in the territory of the State of origin but also in the territory of the States likely to be affected, there is an advantage in involving the States affected even at the early stage of the process of developing an EIA. Such involvement could assist either a joint or a separate but simultaneous effort to bring in the necessary inputs for finalizing the EIA.[15]

15. The cases in respect of which an EIA is required cannot always be predetermined by objective criteria. An element of judgement would always be present. At the national level, specifics of the national EIA legislation, administrative practices and environmental conditions could provide an indication of the cases requiring EIA. Alternatively, using certain criteria, e.g., like location, areas and size of the activity, the nature of its impact, the degree of risk, public interest and environmental values, it would also be possible to develop a list of activities subject to an EIA. The list thus prepared or the criteria employed could be updated and revised on the basis of experience gained and further availability of better knowledge of materials used, their impact as well as technology. Certain substances are listed in some Conventions as dangerous or hazardous and their use in any activity may itself be an indication that the activities might cause significant transboundary harm and hence require an EIA.[16]

---

because of planned activities under the jurisdiction and control of the State. Similarly, the 1978 draft UNEP Principles of Conduct in the Field of the Environment for the Guidance of States in the Conservation and Harmonious Utilization of Natural Resources Shared by Two or More States, the 1985 Association of South-East Asian Nations (ASEAN) Agreement on the Conservation of Nature and Natural Resources, the 1989 World Bank operational directive, the 1991 Convention on Environmental Impact Assessment in a Transboundary Context, the 1991 Protocol on Environmental Protection to the Antarctic Treaty, the 1992 Convention on Biological Diversity and principle 17 of the Rio Declaration of 1992 also could be cited as examples where the duty to conduct an environmental impact assessment was envisaged. For a mention of these agreements, see New Zealand Ministry of Foreign Affairs and Trade, *New Zealand at the International Court of Justice; French Nuclear Testing in the Pacific, Nuclear Tests Case, New Zealand v. France 1995* (New Zealand, 1996), p. 184. See also articles 12 and 18 of the 1997 Convention on the Law of the Non-navigational Uses of International Watercourses.

[14] See *New Zealand at the International Court of Justice, idem*, pp. 182-183. Furthermore, one commentator observed:

> "One may, however, consider the function of notification and consultation in this regard. The aim of such cooperation is to enable other possibly affected States to bring into play and safeguard their interests. This process of cooperation will necessarily include an exchange of views as to the substantiality of the possible harm likely to occur. Consequentially, the question whether a certain matter is relevant relates to the perspective of the States possibly affected. As it is incumbent on that State to figure out and decide whether its interests are at stake, the answer to the question of relevance seems to be that all matters have to be notified which within a reasonable perspective may be deemed to be relevant." Peter-Tobias Stoll, "The International Environmental Law of Cooperation" *in* Rudiger Wolfrum (ed.), *Enforcing Environmental Standards: Economic Mechanisms as Viable Means?* (Springer-Verlag, 1996), p. 47.

[15] See *Current Policies* ..., op.cit. (footnote 4 above), p. 69.

[16] See, for example, the 1974 Convention for the Prevention of Marine Pollution from Land-based Sources (article 4) and the 1992 Convention on the Protection of the Marine Environment of the Baltic Sea Area.

16. There are also certain Conventions that list the activities that are presumed to be harmful, which might signal that these activities might fall within the scope of the draft articles and hence require an EIA.[17]

17. In assessing the significance of the likely impact of an activity on the environment, it is necessary to keep in view both the extent and the magnitude of the impact. The possibility that an activity may lead to significant transboundary harm by contributing to the cumulative effect of existing, individually significant impacts should also be considered.[18]

18. The content of the risk assessment could vary from activity to activity and other factors involved. The 1987 UNEP Guidelines on "Goals and Principles of Environmental Impact Assessment" provided that: "[w]here the extent, nature or location of a proposed activity is such that it is likely to significantly affect the environment, a comprehensive environmental impact assessment should be undertaken" (principle 1). Under principle 4 a proper EIA should include, at a minimum:

(a) A description of the proposed activity;

(b) A description of the potentially affected environment, including specific information necessary for identifying and assessing the environmental effects of the proposed activity;

(c) A description of practical alternatives, as appropriate;

(d) An assessment of the likely or potential environmental impacts of the proposed activity and alternatives, including the direct, indirect, cumulative, short-term and long-term effects;

(e) An identification and description of measures available to mitigate adverse environmental impacts of the proposed activity and alternatives, and an assessment of those measures;

(f) An indication of gaps in knowledge and uncertainties which may be encountered in compiling the required information;

(g) An indication of whether the environment of any other State or areas beyond national jurisdiction is likely to be affected by the proposed activity or alternatives;

(h) A brief, non-technical summary of the information provided under the above headings.[19]

19. Similarly, article 4 of the 1991 Convention on Environmental Impact Assessment in a Transboundary Context also provided, by way of guidance to States parties, in appendix II

---

[17] See annex I to the 1991 Convention on Environment Impact Assessment in a Transboundary Context, where a number of activities such as crude oil refinery, thermal power stations, installations to produce enriched nuclear fuels, etc., are identified as possible dangers to the environment and requiring EIA under the Convention; annex II to the 1993 Convention on Civil Liability for Damage Resulting from Activities Dangerous to the Environment, where activities such as the installations or sites for the partial or complete disposal of solid/liquid wastes by incineration on land or at sea, installations or sites for thermal degradation of solid, gaseous or liquid wastes under reduced oxygen supplies have been identified as dangerous activities. The same Convention also has a list of dangerous substances in annex I. See *Official Records of the General Assembly, Fifty-first Session, Supplement No. 10* (A/51/10), para. (8) of the commentary to article 10, footnotes 104 and 105, p. 293.

[18] *Current Policies* ..., op.cit. (footnote 4 above), p. 49.

[19] For the full text see P. W. Birnie and A. Boyle, *Basic Documents on International Law and Environment* (Oxford, 1995), p. 29.

a list of nine items, similar to the one noted above, on which information should be required for the purpose of EIA.[20]

20. Implementation of the requirement of risk assessment through a statement on environmental impact assessment and the duty to notify the risk involved to the States concerned raises several issues concerning: time limits for notification and submission of information; content of the notification; responsibility for the procedural steps that aim at public participation, in particular, participation of the public of the affected State in the EIA procedures of the State of origins and responsibility for the cost involved. In the context of an examination of these matters in respect of the implementation of the 1991 Convention on Environmental Impact Assessment in a Transboundary Context, it has thus been observed:

> "Current practice does not reflect the full implementation of the provisions of the Convention. There is at present a diverse experience in EIA in a transboundary context, and it can be concluded that until now no uniform approach to transboundary information exchange has been followed. The approaches proposed could serve as guidance to competent national authorities in the practical application of relevant provisions of the Convention. Experience gained in following these approaches could be examined in due course".[21]

21. It is also pertinent to note that, while reviewing the Antarctic Treaty System and the general rules of environmental law, one commentator observed that "adoption of environmental assessment at present cannot be considered to be more than a progressive trend of international law; we can hardly say that States consider such a practice legally binding under general international law".[22]

C. The principles of cooperation, exchange of information, notification, consultation and negotiation in good faith

22. The general principle of cooperation among States is an important principle in respect of prevention. Other relevant principles in this regard are the principles of good faith and good-neighbourliness. The principle of cooperation was emphasized in article 3 of the 12 December 1971 Charter of Economic Rights and Duties of States (General Assembly resolution 3281 (XXIX), General Assembly resolution 2995 (XXVII) of 15 December 1972 on cooperation between States in the field of the environment and in General Assembly resolution 3129 (XXVIII) of 13 December 1973 on cooperation in the field of the

---

[20] However, the list in the 1991 Convention contains no reference to the requirement of an indication as to whether the environment of any other State or area beyond national jurisdiction is likely to be affected by the proposed activity or alternatives, as noted in subparagraph (g) of the UNEP Guidelines. However, the Convention, in subparagraph (h) of appendix II, suggests that, where appropriate, an outline for monitoring and management programmes and any plans for post-project analysis should be included in EIA, a requirement not indicated in the UNEP Guidelines.

[21] Economic Commission for Europe, op.cit. (footnote 4 above), p. 46.

[22] L. Pineschi, "The Antarctic Treaty System and General Rules of International Environmental Law", in F. Francioni and T. Scovazzi (eds.), *International Law of Antarctica* (1987), p. 187. As regards the EIA legislation of developing countries, it was observed that its effectiveness remained unclear. Common problems which developing countries continue to face include: strong political and other support for unrestricted socio-economic development; burdensome institutional or administrative arrangements which cause delays and make EIA seem anti-development; a lack of national EIA expertise and financial resources to implement legislation; weak public participation; and the inability of EIA to affect actual decision-making; see Yeater and Kurukulasuriya, op.cit. (footnote 7 above), p. 267.

environment concerning natural resources shared by two or more States. In addition, principle 24 of the 1972 Stockholm Declaration on Human Environment, states:

> "International matters concerning the protection and improvement of the environment should be handled in a cooperative spirit by all countries, big and small, on an equal footing. Cooperation through multilateral or bilateral arrangements or other appropriate means is essential to effectively control, prevent, reduce and eliminate adverse environmental effects resulting from activities conducted in all spheres, in such a way that due account is taken of the sovereignty and interests of all States."

23. Similarly, the principle of cooperation was emphasized in article 197 of the 1982 United Nations Convention on the Law of the Sea, under which States are required to cooperate "in formulating and elaborating international rules, standards and recommended practices and procedures consistent with this Convention, for the protection and preservation of the marine environment, taking into account characteristic regional features."

24. Article 8 of the Convention on the Law of the Non-Navigational Uses of International Watercourses (General Assembly resolution 51/229) provides that watercourse States have the general obligation to "cooperate on the basis of sovereign equality, territorial integrity, mutual benefit and good faith in order to attain optimal utilization and adequate protection of an international watercourse."

25. The greater reliance on the principle of cooperation is significant in that it marks a departure from the classical approach based on principles of coexistence amongst States and emphasizes a more positive or even more integrated interaction among them to achieve common ends, while charging them with positive obligations of commission.[23]

26. Cooperation could involve both standard-setting and institution-building as well as action undertaken in a spirit of reasonable consideration of each other's interests and towards achievement of common goals. Accordingly, there are several treaties which incorporate principles of equitable sharing and adopt an integrated approach to the development of shared resources, particularly in the context of a river basin. Reference in this regard could be made to the 1965 Treaty between the United States and Canada relating to the Cooperative Development of the Columbia River Basin; the 1961 Indus Water Treaty between India and Pakistan; the 1959 Agreement between the Sudan and the United Arab Republic for the Full Utilization of the Nile Waters; and the 1987 Agreement on the Action Plan for the Environmentally Sound Management of the Common Zambezi River System.[24] In the case of petroleum resources where more than one State holds exploitation rights to overlapping, straddling or proximate reservoirs, it is common for States to enter into joint cooperation arrangements for the development of the resource. Contractual arrangements entered into in this regard, which are also referred to as "unitization agreements", determine the rights and obligations of the parties. Such inter-State unitization agreements were concluded between the Sudan and Saudi Arabia in 1974, between the United Kingdom of

---

[23] Report of the Secretary-General entitled, "*Progressive development of the principles and norms of international law to the new international economic order*" A/39/504/Add.1, annex III, analytical study, pp. 17-18. See also F. Francioni, "International Co-operation for the Protection of the Environment: The Procedural Dimension", in W. Lang, H. Neuhold and K. Zemanek (eds.), *Environmental Protection and International Law* (1991), p. 203.

[24] See A. Deng, "Peaceful Management of Natural Resources" in *International Law as a Language for International Relations: Proceedings of the United Nations Congress on Public International Law* (United Nations publication, Sales No. T.96.V.4), pp. 186-188.

Great Britain and Northern Ireland and Norway in 1976, and between Australia and Indonesia in 1989.[25]

27. At the procedural level, cooperation embraces a duty to notify the potentially affected neighbouring State(s) and to engage in consultation with such State(s). The duty to notify would be specific in the case of a planned activity which has a risk of causing significant transboundary harm to other States or areas beyond national jurisdiction. Such a duty of cooperation could also involve regular exchange of data and information, as provided in article 9 of the 1997 Convention on the Law of the Non-navigational Uses of International Watercourses.

28. In either case, the duty of the State is to provide such information as is readily available to it. However, States are expected to employ their best efforts to collect and, where appropriate, to process data and information in a manner which facilitates its utilization by the other States to which it is communicated.

29. The duty of cooperation and the further duty to notify also implies that if any additional information is required by the other State, the same shall also be supplied.[26]

30. Where further information is provided to other concerned States at their request, such service can be rendered on payment of reasonable cost. Further, in considering the timing of notification and the extent of information to be given, it is difficult to define in an abstract manner any kind of standard because of uncertainty about what constitutes relevant harm and also because standards in this regard may vary. Moreover, it is obvious that the duty to notify and provide relevant information to other States concerned is related to national policies, procedures and law.[27]

31. In addition, the general duty to cooperate is also now understood to extend beyond the duty of the State in whose territory the risk-bearing activity is undertaken to third States and even to those States which actually are likely to be affected. As has been noted "this may indicate that there is some idea of common interest in reducing and mitigating the harm done or (likely to be caused)". Further, "apparently this common interest is considered to supersede the very logic of liability in cases where liability cannot be established or where the State responsible for the harm is not capable of reducing and mitigating the harm done".[28]

32. The general duty to cooperate could also be expressed through the establishment of joint planning commissions and/or other joint commissions.[29]

33. At the normative level, it is difficult to conclude that there is an obligation in customary international law to cooperate generally. States are prepared to recognize an

---

[25] Ibid., pp. 194-197.

[26] However, it is pertinent to note here the observation of the arbitral tribunal in the *Lake Lanoux* case, which stated that "[a] State wishing to [engage in planned activities] which will affect an international watercourse cannot [unilaterally] decide whether another State's interests will be affected; the other State is the sole judge of that and has the right to information on the proposals." *International Law Reports 1957*, p. 119. See also the argument of New Zealand before the International Court of Justice (see footnote 13 above).

[27] See Stoll, op. cit. (footnote 14 above), p. 48.

[28] Ibid., p. 54; see also footnote 43, p. 55. See also article 7 of the 1997 Strasbourg Resolution of the Institute of International Law on Environment.

[29] See the Resolution of Pollution of Rivers and Lakes and International Law adopted by the Institute of International Law at its Athens session in September 1979, which contains articles on exchange of information, prior notification and the establishment of international agencies to combat pollution: *Annuaire de l'Institut de droit international* (1979), p. 196. See also A. Deng, op. cit. (footnote 24 above), p. 192.

international common interest and a general duty to cooperate only in carefully delimited areas. Accordingly, it has been observed that "[t]he great number of similar provisions in existing treaty regimes on each of those aspects of cooperation cannot be understood to constitute related customary international rules which may be considered to generally apply in environmental matters."[30]

34. The duty to notify leads us to a duty to consult with concerned States on the basis of the information supplied or needed. The objective of consultation is to reconcile conflicting interests and to arrive at solutions which are mutually beneficial or satisfactory. Article 17 of the general principles adopted by the Experts Group on Environmental Law of the World Commission on Environment and Development[31] states that such consultations should be held in good faith, upon request, at an early stage, between the notifying State(s) and the notified State(s). The arbitral tribunal in the 1957 Award in the *Lake Lanoux* case observed that, where different interests of riparian States are involved, "according to the rules of good faith, the upstream State is under the obligation to take into consideration the various interests involved, to seek to give them every satisfaction compatible with the pursuit of its own interests and to show that in this regard it is genuinely concerned to reconcile the interests of the other riparian State with its own."[32]

35. Mention may also be made in this regard of the case concerning the *Territorial Jurisdiction of the International Commission of the River Oder* considered by the Permanent Court of International Justice, where the Court, rejecting the contention of Poland that the jurisdiction of the Commission ended where the Oder crossed into Poland, held that "it is at once seen that a solution of the problem has been sought not in the idea of the right of passage in favour of upstream States but in the community of riparian States". It further added that "this community of interest in a navigational river becomes the basis of the common legal right, the essential features of which are the perfect equality of all the riparians in the use of the whole course of the river and the exclusion of any preferential privilege of any riparian State in relation to others."[33]

36. Considerations noted above in respect of the duty to consult would also apply in respect of the duty to negotiate which could arise thereafter. For example, article 17 of the 1997 Convention on the Law of the Non-navigational Uses of International Watercourses points out that the consultations and negotiations "shall be conducted on the basis that each State must in good faith pay reasonable regard to the rights and legitimate interests of the other State." Moreover, in the case of planned activities, article 17, paragraph 3 further states that "[d]uring the course of consultations and negotiations, the notifying State shall, if so requested by a notified State at the time it makes the communication, refrain from implementing or permitting the implementation of the planned measures for a period of six months unless otherwise agreed."

37. It is well established that the obligation to negotiate, where it arises, does not include an obligation to reach an agreement.[34] However, as was pointed out by the International Court of Justice in the *North Sea Continental Shelf* cases, negotiation, to be in conformity with the obligation to negotiate, should be meaningful, be a genuine endeavour at bargaining,

---

[30] Stoll, op. cit. (footnote 14 above), p. 48.

[31] *Environmental Protection and Sustainable Development – Legal principles and Recommendations*, adopted by the Experts Group on Environmental Law of the World Commission on Environment and Development (Graham and Trotman/Martinus Nijhoff, 1986), pp. 104-105.

[32] *International Law Reports*, 1957, p. 139.

[33] *P.C.I.J., Series A*, No. 23, p. 26.

[34] B.S. Murthy, "Diplomacy and resolution of International Disputes", in *International Law as a Language* ..., op. cit. (footnote 24 above), p. 163.

and not a mere affirmation of one's claims without ever contemplating to meet the adversary's claim.[35]

38. Thus, the obligation to consult and negotiate in good faith, as appropriate, does not amount to prior consent from or a right of veto of the States with which consultations are to be held. This has been further confirmed by the Commission in connection with the draft articles on the law of the non-navigational uses of international watercourses. While providing for the requirement of consultation with a view to negotiating in good faith for the purpose of concluding a watercourse agreement or agreements, the Commission stated that:

> "Moreover, watercourse States are not under an obligation to conclude an agreement before using the waters of the international watercourse. To require conclusion of an agreement as a precondition of use would be to afford watercourse States the power to veto a use by other watercourse States of the waters of the international watercourse by simply refusing to reach agreement. Such a result is not supported by the terms or the intent of article 3. Nor does it find support in State practice or international judicial decisions (indeed, the *Lake Lanoux* arbitral award negates it)."[36]

D. The principle of dispute prevention or avoidance and settlement of disputes

39. Though strictly not falling under the rubric of prevention of harm, the principle of dispute avoidance or prevention of disputes is also suggested as one of the components of prevention. It emphasizes the need to anticipate and prevent environmental problems. As part of the concept of dispute avoidance, States are urged to develop "methods, procedures and mechanisms that promote, *inter alia*, informed decisions, mutual understanding and confidence-building".[37] Further, such procedures and methods would entail – apart from exchange of available information, prior informed consent, transboundary environmental impact assessment – the use of fact-finding commissions involving independent scientific and technical experts and panels as well as national reporting.

40. The emphasis on dispute avoidance has a compelling ring to it inasmuch as it is evident that, unlike normal illegal acts, environmental damage is required to be prevented as far as possible *ab initio*. Once such damage occurs, it is generally feared that its negative consequences cannot be fully wiped out through reparation and the situation prior to the event or incident generally cannot be restored. It has thus been suggested that "the rationale behind the emphasis upon prevention or avoidance of environmental dispute is thus rooted in the clear preference for the policy of forecasting and preventing environmental damage

---

[35] See *North Sea Continental Shelf, Judgment, I.C.J. Reports 1969*, p. 3.

[36] *Yearbook ... 1994*, vol. II (Part Two), p. 94, para. (17) of the commentary to draft article 3. According to one author, consultation means something more than notification but less than consent. See F.L. Kirgis, Jr., *Prior Consultation in International Law* (University Press of Virginia, 1983), p. 11: "Consultation does not require agreement with the affected State(s), but it does take into account that State(s) views and recommendations". See also ILA Montreal Rules of International Law Applicable to Transfrontier Pollution, ILA, *Report of the Sixtieth Conference* (Montreal), 1982).

[37] Area D of Montevideo programme II of UNEP, *Final Report of the Expert Group Workshop on International Environmental Law Aiming at Sustainable Development*, UNEP/IEL/WS/3/2, p. 6.

to that of reacting and correcting such damage, when corrective measures would turn out to be simply otiose.".[38]

41. The matter of dispute avoidance was also considered during the United Nations Conference on Environment and Development (UNCED) preparatory process and at the Rio Conference itself. A proposal put forward by Austria and five other States involved the establishment of a compulsory inquiry commission in which the Executive Director of UNEP was given an important role. The inquiry commission would have been given the mandate to clarify and establish the factual issues of a situation originating in one State and of concern to other States. The commission would have been competent to seek access to all relevant documents and to the site of the activity giving rise to the situation. The proposal, however, did not gather support at Rio as States were reluctant to subordinate national sovereignty and jurisdiction to the competence of such commissions. Accordingly, in chapter 39, paragraph 10, of Agenda 21 the Conference recommended that in the area of avoidance and settlement of disputes, States should further study and consider methods to broaden and make more effective use of the range of techniques currently available.

42. Article 33 of the 1997 Convention on Law of the Non-navigational Uses of International Watercourses makes an attempt to project a role for compulsory fact-finding missions, while all other procedures of dispute settlement mentioned therein have been kept optional requiring the consent of all States parties involved.[39]

43. Fact-finding has also been the focus of United Nations efforts to enhance its capability under the Charter of the United Nations to maintain international peace and security. Accordingly, the General Assembly, in its resolution 46/59 of 9 December 1991, adopted a Declaration on Fact-Finding by the United Nations in the Field of the Maintenance of International Peace and Security the main purpose of which was to enhance the fact-finding capabilities of the Secretary General, the Security Council and the General Assembly to enable them to exercise their functions effectively under the Charter. It provided, *inter alia*, that the Secretary-General, on his own initiative or at the request of the States concerned, should consider undertaking fact-finding missions in areas where a situation exists which might threaten the maintenance of international peace and security. When appropriate, he may bring the information obtained to the attention of the Security Council.[40]

44. Dispute avoidance also comprises techniques like seeking good offices, mediation and conciliation, in addition to fact-finding commissions. The Secretary-General of the United Nations, in his important contribution contained in his report entitled "An Agenda for Peace", articulated these elements as part of a strategy of promoting preventive diplomacy and peacemaking. Preventive diplomacy is a measure to ease tensions before they result in conflict, or if conflict breaks out, to act swiftly to contain it and resolve its underlying causes. Such diplomacy "requires measures to create confidence; it needs early

[38] The concept of dispute avoidance was also discussed at a meeting of experts convened by the Rockefeller Foundation at Bellagio, Italy, in 1974. It was later also echoed in the negotiations of the United Nations Conference of the Law of the Sea, see A.O. Adede, "Avoidance, Prevention and Settlement of International Environmental Disputes", in Lin and Kurukulasuriya, op. cit. (footnote 7 above), p. 54.

[39] See Stephen McCaffrey and Robert Rosenstock, "The International Law Commission's Draft Articles on International Watercourses: an Overview and Commentary", in *Review of European Community and International Environmental Law*, vol. 5 (1996), p. 93.

[40] For an analysis of the Declaration, see Christiane Bourloyannis, "Fact-Finding by the Secretary-General of the United Nations", in *New York University Journal of International Law and Politics*, vol. 22 (1990), pp. 641-669. See also Husain Al-Baharna, "The Fact-finding Mission of the UN Secretary-General and the Settlement of the Bahrain-Iran Dispute, May 1970", *International and Comparative Law Quarterly* (1973), pp. 541-552.

warning based on information gathering and informal or formal fact-finding; it may also involve preventive deployment and, in some situations, demilitarized zones."[41] The United Nations is also developing several early warning systems concerning environmental threats, the risk of nuclear accidents, natural disasters, mass movements of population, the threat of famine and the spread of disease. Attempts are further being made to synthesize information gathered with political indicators to assess whether a threat to peace exists and to analyse action that could be taken by the United Nations to avoid disputes or defuse a crisis.

45. Explaining the various options available in promoting peacemaking, the Secretary-General noted that:

> "Mediation and negotiation can be undertaken by an individual designated by the Security Council, by the General Assembly or by the Secretary-General. ... Frequently it is the Secretary-General himself who undertakes the task. While the mediator's effectiveness is enhanced by strong and evident support from the Council, the General Assembly and the relevant Member States acting in their national capacity, the good offices of the Secretary-General may at times be employed most effectively when conducted independently of the deliberative bodies."[42]

46. It may be noted that good offices or mediation could be offered as a means of preventing further deterioration of the dispute and as a method of facilitating efforts for the peaceful settlement of the dispute. In the case of good offices extended upon the initiative of a third party or at the request of one or more parties to the dispute, it is subject to the acceptance by all the parties to the dispute. The third party exercising good offices normally seeks to encourage the parties to the dispute to resume negotiations and thus provides them with a channel of communication. Of course, it could also take a more active role and make proposals for solutions at the request of the parties. In the latter case, the process amounts to almost mediation.

47. Mediation is thus essentially a method of peaceful settlement or avoidance of disputes where a third party intervenes to reconcile the claims of the contending parties and to advance its own proposals aimed at a mutually acceptable compromise solution. It is a distinctive method for facilitating a dialogue between the parties to an international dispute or situation aimed at scaling down hostilities and tensions and for achieving, through a political process controlled by the parties, an amicable solution to the problem involved. Mediation is best employed when both parties are willing to resolve their differences. However, no mediation can take place unless it is initiated by a third party and a mediator has been accepted or appointed by agreement among the parties.

48. As opposed to the methods described above, conciliation is a procedure which combines the elements of both inquiry and mediation. It provides the parties on the one hand with an objective investigation and evaluation of all aspects of the dispute and, on the other hand, with an informal third-party machinery for the negotiation and non-judicial appraisal of each other's legal and other claims, including the opportunity to define the terms for a solution susceptible of being accepted by them.[43]

49. Both mediation and conciliation would involve basically negotiations between the parties with the participation of a third party. While the parties have a role to play in both

---

[41] A/47/277-S/24111, para.23.

[42] Ibid., para. 37.

[43] For an analysis of the method of good offices, mediation and conciliation and State practice relating to them, see "Handbook on the Peaceful Settlement of Disputes between States", *Official Records of the General Assembly, Forty-sixth session, Supplement No. 33* (A/46/33), annex, chap. II, sects. C, D and E.

instances and have some control over the process, they have no direct influence over the solution to be proposed by a mediator or a conciliator.

50. Methods of dispute avoidance would have an innovative and influential role to play in bringing parties together by identifying their claims and clarifying their interests and resolving them in a flexible way through a process of negotiation and mutual concessions. As has been pointed out, through these methods "the intermediaries could provide useful services to help the parties not only in initiating the process of dispute resolution but also in resolving possible procedural, technical and substantive difficulties encountered during the process". They could also address "the needs, wants, concerns and fears of the parties concerned" and "persuade and convince the parties by what means they should resolve the dispute".[44]

51. All the techniques referred to in Article 33 of the Charter of the United Nations would no doubt best contribute to the prevention of disputes or their early resolution when employed with the consent of all the parties involved. Further, dispute avoidance is enhanced through improved compliance with international obligations and other implementation mechanisms. Degree of compliance with and implementation of international obligations would no doubt depend upon the existence and effectiveness of national policy, corresponding legislation and monitoring institutions.[45]

52. Several international environmental treaties also rely on self-reporting on a broad range of activities including, for example, efforts to curb trade in endangered species of wildlife, reduce greenhouse gas emissions, eliminate production of ozone-destroying substances and conserve biological diversity. National reporting is also an important element in enhancing implementation.

53. An expert group which studied the matter has made several recommendations with respect to enhancing compliance with and implementation of international obligations:

(a) Compliance frequently requires resources, including technologies or technical expertise, that are not readily available, particularly in developing countries. Failure to comply often reflects a lack of capacity rather than a lack of will. Accordingly, reliance on sanctions will typically not be appropriate except in response to flagrant violations of international norms caused by a lack of will rather than by a lack of capacity;

(b) Owing to the global nature of some environmental issues and the potentially high cost of compliance, particularly for developing countries and countries in transition, compliance and implementation must be approached in a spirit of global partnership. Such a partnership could include the provision of additional financial resources, technical assistance, transfer of technology and capacity-building. (One recent example that seeks to identify appropriate enabling mechanisms is the non-compliance procedure under the Montreal Protocol, which allows countries to report difficulties with compliance to an implementation committee, thereby enlisting the help of other parties to the instrument in achieving compliance);

(c) Capacity-building of developing countries to implement their international obligations remains among the most crucial challenges for enabling compliance. Apart from

[44] See Roy S. Lee, "How Can States Be Enticed to Settle Disputes Peacefully?" in W. Kuhne (ed.), *Friedenserhaltende und schaffende Massnahmen: Die Universale Option (Möglichkeiten, Erfordernisse und Probleme im Rahmen der Vereinten Nationen) Peacekeeping and peacemaking measures: the universal option (possibilities, necessities and problems of the United Nations)*, Part C, vol. 6 (Ebenhausen, Germany), p. 292.

[45] W. Lang, "Compliance Control in International Environmental Law: Institutional Necessities," *Heidelberg Journal of International Law*, No. 3 (1996), pp. 685-695.

various efforts to promote such capacity-building through specific provisions of international environmental treaties, in future increased cooperation and new partnerships with and among different actors, including, for example, the financial institutions, industry, and environment and development, non-governmental organizations, will be critical for improving compliance and implementation;

(d) Compliance with reporting requirements could be enhanced by, *inter alia*, increasing capacity to gather information and compile the necessary reports; streamlining, harmonizing and integrating existing reporting requirements; increasing transparency and public involvement in reporting; and adopting new technologies and methodologies for reporting. International cooperation and assistance should also be targeted to assist developing countries and countries in transition in implementing coherent, effective and credible reporting systems;

(e) Subject to their constitutive instruments, international organizations can also play an enhanced role in this regard. Treaty secretariats should assist parties in enacting enabling domestic legislation to implement the treaty obligations. National compliance plans containing specific and measurable benchmarks should be developed and submitted to the treaty secretariats;

(f) Regional approaches to enhancing implementation and compliance may play an important role in the future. Processes of regional economic integration, to the extent that they aim at sustainable development, may contribute to monitoring or enhancing environmental performance. (As one example, we may note the independent review by the Organisation for Economic Cooperation and Development (OECD) of the environmental performance of each member country, which includes implementation of international treaties);

(g) Many non-State actors have the expertise and resources to monitor and assist implementation efforts and draw attention to incidents of non-compliance. The non-State actors working in cooperation with Governments can contribute significantly to a culture of compliance by helping to build the capacity for implementation, by assisting in the transfer and dissemination of technology and knowledge, and by raising the general awareness of environmental issues;

(h) Increased education concerning environmental issues particularly at the local level is also important for facilitating improved compliance and implementation.

E. The principle of non-discrimination

54. The principle of non-discrimination or the equal right of access recognized by OECD is designed to make available to actual or potential "victims" of transfrontier pollution, who are in a country other than that where the pollution originates, the same administrative or legal procedures as those enjoyed by potential or actual victims of a similar pollution in the country of origin. Even though the principle thus stated is more relevant in the context of seeking remedies in the face of substantial harm that already occurred in its application, it provides in fact for a situation where two victims of the same transfrontier pollution situated on opposite sides of a common frontier have the same opportunity to voice their opinions or defend their interests both at the preventive stage before the pollution has occurred and in the curative stage thereafter. Accordingly, the national and foreign "victims" may participate on an equal footing at inquiries or public hearings organized, for example, to examine the environmental impact of a polluting activity and may undertake proceedings in relation to environmental decisions which they wish to challenge without discrimination

before the appropriate administrative or legal authorities of the country where the pollution originates. They may also take legal action to obtain compensation for a damage or its cessation.[46]

55. The principle of non-discrimination is designed primarily to deal with environmental problems occurring among neighbouring States, as opposed to long-distance pollution. The principle aims at providing equal treatment for aliens on par with nationals in respect of legal rights and remedies and right of access to judicial and administrative forums they enjoy in their State. Successful operation of the principle would require some similarities between the legal systems in the neighbouring States and some similarities between their policies for the protection of the rights of persons, property and environment situated within their territories. A potential problem with the application of the principle lies in the fact that there are sometimes drastic differences between the substantive remedies provided in various States. Mention may be made in this context of the differences between the environmental laws of the United States and Mexico or between some Western European and Eastern European States. Difficulties have been experienced even within the OECD countries. One such difficulty relates to the long-standing tradition in some countries whereby administrative courts have no jurisdiction to hear cases concerning the extraterritorial effects of administrative decisions. A second difficulty, in a few countries, arises from conferring sole jurisdiction on the courts of the place where the damage occurred.[47]

56. Article 32 of the 1997 Convention on the Law of the Non-navigational Uses of International Watercourses also deals with the principle of non-discrimination. It provides that natural or juridical persons who have suffered or are under a serious threat of suffering significant transboundary harm shall without discrimination have access in accordance with the national legal system of the State of origin to judicial or other procedures of that State or a right to claim compensation or other relief in respect of significant harm caused by activities carried on its territory. The Convention was adopted by a recorded vote, with 104 States in favour, 3 against and 26 States abstaining. Some States had reservations on the suitability and applicability of the principle of non-discrimination at a global level, particularly in respect of a community of States which are not economically, socially and politically integrated.[48]

57. The principle of non-discrimination has come before the International Law Commission for consideration in various forms. Article 29 of the draft article presented by Barboza in his sixth report dealt with this concept. According to that provision, in the event of transboundary harm, a State would have the obligation through national legislation to grant its courts jurisdiction to deal with claims of liability from affected States or individuals or legal entities. Thus, the principle was presented as a component of a regime on civil liability.[49] The question of providing suitable remedies in case of transboundary harm to persons, property and the environment in the affected State within the law and procedure and through the legal and other forums of the affected State was also discussed in Barboza's

---

[46] See OECD, Environment Directive on equal right of access and non-discrimination in relation to transfrontier pollution, 1986, cited in "Survey of liability regimes relevant to the topic of international liability for injurious consequences arising out of acts not prohibited by international law", A/CN.4/471, paras. 118-129.

[47] "Survey of liability regimes ...", op. cit. (footnote 46 above), para. 125.

[48] Colombia, Ethiopia, India and the Russian Federation had reservations on the article. The United Republic of Tanzania had reservations on the phrase "or the place where the injury occurred", as it might come in conflict with the territorial limitations of cause of action. See A/51/PV.99.

[49] See sixth report, *Yearbook ... 1990*, vol. II (Part One), pp. 99-100 and 109, document A/CN.4/428 and Add.1.

tenth report, where different alternative channels for such remedies were noted.[50] The matter was left undecided, as the Commission took the decision at the time to limit the scope of the exercise initially to the question of prevention only. Accordingly, no article was adopted on this matter by the Commission. However, the Working Group adopted in 1996 an article on the principle of non-discrimination under chapter III on compensation or other relief.[51]

58. The rule of non-discrimination is meant to provide equality of access to all potential or actual victims of an activity bearing a risk of causing substantial harm without discrimination on grounds of nationality, residence or place of injury. However, the situation of potential victims is different from that of actual victims in terms of remedies available to them. Potential foreign victims are first protected by their own State, that is, the affected State to which the State of origin owes a duty of notification, consultation and negotiation in case of such activities. There is also the evolving requirement of environmental impact assessment for seeking authorization under national law for dangerous activities, which in turn provides for public participation. Such participation could be extended to foreign potential victims on a par with nationals before various concerned forums or where joint assessment is undertaken by States of origin and the affected State, through forums established in one's own State or before forums of the State of origin as per any agreed regime of prevention between the State of origin and the affected State.

59. Questions could still arise concerning public participation. Opinions could vary, referendums may not be representative of the true will of people and it may not be possible to express an opinion based on scientific evidence to enable the State to make reasonable and prudent decisions. Similarly, questions would also arise regarding the *locus standi* of foreign potential victims to participate in the preliminary assessment stage where no conclusion could be drawn about the nature and magnitude of the risk involved. However, once it is established that the risk is significant, there is a compelling need to give foreign potential victims suitable access to appropriate forums so as to enable the State of origin to take into consideration their views and interests. In this respect, there appears to be more than one possible option.

60. The case of foreign actual victims of transboundary harm is a different one, however, the matter must be discussed in a different context, as the present focus is only on prevention. The draft article adopted by the Working Group of the International Law Commission in 1996 and the various alternatives indicated by Barboza in his tenth report could be reviewed, as appropriate, at a later stage.[52]

---

[50] See tenth report, A/CN.4/459, paras. 89-102, where four alternatives were set out: (a) State to State; (b) private parties versus State of origin; (c) affected State versus private parties; and (d) private injured parties versus private liable parties.

[51] *Official Records of the General Assembly, Fifty-first session, Supplement No. 10* (A/51/10), annex I, chap. III, article 20.

[52] For some of the alternatives discussed see also L.D. Guruswamy, Sir G.W.R. Palmer and B.H. Weston, *International Environmental Law and World Order: A Problem-Oriented Coursebook* (West Publishing Co., St. Paul, Minn., 1994), pp. 325-332.

II. Principles of content

A. The principle of precaution

61. The principle of precaution states that where there are threats of serious or irreversible harm, a lack of full scientific certainty about the causes and effects of environmental harm shall not be used as a reason for postponing measures to prevent environmental degradation. Implementation of this principle would involve anticipation of environmental harm and taking measures to avoid it or to choose the least environmentally harmful activity. It is based upon the assumption that scientific certainty, to the extent it is obtainable, with regard to issues of environment and development may be achieved too late to provide effective responses to environmental threats. The principle also suggests that where there is an identifiable risk of serious or irreversible environmental harm, including, for example, extinction of species, widespread toxic pollution or major threats to essential ecological processes, it may be appropriate to place the burden of proof on the person or entity proposing the activity that is potentially harmful to the environment.[53]

62. One study which analysed at some depth the principle of precaution and resource conservation identified the following precautionary measures:

(a) Environmental protection should not only aim at protecting human health, property and economic interests, but also protect the environment for its own sake;

(b) Precautionary duties must not only be triggered by the suspicion of concrete danger but also by (justified) concern or risk potential;

(c) Prevention and abatement duties must not be conditioned on full scientific proof or a precise cause/effect relation and attainment of damage thresholds;

(d) A permit requirement for potentially dangerous activities, environmental monitoring, pollution control and minimal planning are crucial for planned resources and eco-management;

(e) This requires long-term planning. A human rights approach (right to decent environment) is desirable;

(f) There must be regional eco-management and, for a few areas, global cooperation instead of purely national management. Regular information, timely notification and consultation are essential conditions for this purpose. Joint monitoring, joint emergency regimes and joint scientific cooperation are also helpful;

(g) There must be no differentiation between domestic and international environmental damage. This internationalization and regional and global solidarity must also lead to technology transfer to developing countries to enable them to implement eco-management;

(h) Precautionary eco-management can be best achieved through extensive technical and regional planning, EIA, limitation of discharges through emission standards and treatment using the best available technology. The choice of technology should not be dependent upon economic criteria; quality standards should not replace emission standards;

(i) Precautionary eco-management also requires modern measures affecting the generation (and disposal) of wastes through product substitution, reduction or recycling of wastes. Financial incentives should support these minimization measures in the production

[53] *Final Report of the Expert Group Workshop*, op. cit. (footnote 37 above), p. 14.

processes. Insurance or funding solutions would also be necessary. The principle of solidarity should also allow funding for developing countries in the common interest, especially for enabling them to implement the necessary product substitution.[54]

63. The precautionary principle has been incorporated in a number of international legal instruments, among them the 1992 Baltic Sea Convention, and the 1992 Maastricht Treaty which states that the European Community policy on the environment shall be based on the precautionary principles. It is also incorporated in principle 15 of the Rio Declaration, which provides that "where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation." Principle 15 further requires that "the precautionary approach shall be widely applied to States according to their capabilities."

64. The precautionary principle has been included in some conventions setting forth the obligation of States parties to prevent the release of certain substances into the environment which may cause harm to humans or to the environment. For example, the 1991 Organization of African Unity (OAU) Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa,[55] states in article 4, paragraph 2 (f), that:

> "Each Party shall strive to adopt and implement the preventive, precautionary approach to pollution problems which entails, *inter alia*, preventing the release into the environment of substances which may cause harm to humans or the environment without waiting for scientific proof regarding such harm. The Parties shall cooperate with each other in taking the appropriate measures to implement the precautionary principle to pollution prevention through the application of clean production methods, rather than the pursuit of a permissible emissions approach based on assimilative capacity assumptions."

65. The parties to the 1985 Vienna Convention for the Protection of the Ozone Layer[56] stated in the preamble that in agreeing to the various obligations contained in the Convention, they were "[m]indful also of the precautionary measures for the protection of the ozone layer which have already been taken at the national and international levels".

66. While reference to the precautionary principle or approach can be found in many other treaties or agreements, the precise formulation is not identical in each instrument. The traditional approach requires action only in case of scientific evidence establishing the likelihood of a serious hazard. This requires the party wishing to adopt a measure to prove a case for action based upon the existence of sufficient scientific evidence which may be difficult to obtain. The more modern approach would reverse the situation and would urge the States to take action to prevent, mitigate or eliminate grave and imminent harm taking into account the extent and probability of imminent damage if those measures are not taken.[57]

67. This might require States undertaking or permitting activities creating the risk of causing transboundary harm to establish that their activities or discharges of certain substances would not adversely or significantly affect the environment before the proposed activity is commenced. This interpretation may also require international regulatory action

---

[54] See Harold Hohmann, *Precautionary Legal Duties and Principles of Modern International Environmental Law: The Precautionary Principle: International Environmental Law Between Exploitation and Protection* (London, Graham and Trotman/Martinus Nijhoff, 1994).

[55] *International Legal Materials*, vol. 30, p. 773 (1991).

[56] United Nations, *Treaty Series*, vol. 1513, p. 293.

[57] See Sands, op. cit. (footnote 1 above), p. 209.

where scientific evidence suggests that the lack of action may result in serious or irreversible harm.

68. However, the 1990 Bergen Ministerial Declaration on Sustainable Development in the ECE (Economic Commission for Europe) Region[58] was the first international instrument to treat this principle as one of general application and linked to sustainable development. It provided that:

> "In order to achieve sustainable development, policies must be based on the precautionary principle. Environmental measures must anticipate, prevent and attack the causes of environmental degradation. Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation."[58]

69. The precautionary principle was recommended by the UNEP Governing Council in order to promote the prevention and elimination of marine pollution, which is increasingly becoming a threat to the marine environment and a cause of human suffering.[59] The 1991 Bamako Convention adopted this principle in order to achieve prevention of pollution through the application of clean production methods (article 4 (3) (f)). The Convention also lowers the threshold at which scientific evidence might require action by not referring to "serious" or "irreversible" as adjectives qualifying harm. While the 1992 Convention on Biological Diversity refers to the principle indirectly only in its preamble, the 1992 United Nations Framework Convention on Climate Change established limits on the application of the precautionary principles by requiring a threat of "serious or irreversible damage" and by linking the commitment to an encouragement to take measures which are "cost-effective" (article 3 (3)).

70. From the above it may be concluded that there is no uniform understanding of the meaning of the precautionary principle among States and other members of the international community. Identifying or fixing the level at which scientific evidence is sufficient to override arguments postponing measures or at which measures might even be required as a matter of international law is still an open question.[60]

71. Summing up the legal status of the precautionary principle, one commentator characterized it as "evolving". He further suggested that even though a good argument could be made that a principle which has received sufficient confirmation in various international treaties may be regarded as having acquired the status of a customary principle of international law, "the consequences of its application in any potential situation will be influenced by the circumstances of each case".[61]

72. The precautionary principle is essentially a good policy to be adopted by States. It is a policy of common sense and should be resorted as a matter of self-interest. It is however understood that where the benefits of a certain activity, according to existing practices, far outweigh consequences which are only feared or otherwise suspected, it would be difficult to yield to the demands of the precautionary principle when few viable alternatives exist

---

[58] "Report of the Economic Commission for Europe on the Bergen Conference (8-16 May 1990)", A/CONF.151/PC/10, annex I, para. 7.

[59] Governing Council decision 15/27 (1989); see *Official Records of the General Assembly, Forty-fourth Session, Supplement No. 25* (A/44/25), annex I. See also Sands, ibid., p. 210.

[60] Ibid., p. 212.

[61] Ibid., pp. 212-213.

to meet the urgent developmental demands of the population at large, which is predominantly poor.[62]

B. The polluter-pays principle

73. The polluter-pays principle was first enunciated by the Council of OECD in 1972.[63] It was set out as an economic principle and as the most efficient means of allocating the costs of pollution prevention and control measures so as to encourage the rational use of scarce environmental resources. It also encourages, as a matter of economic policy, free-market internationalization of the costs of publicly mandated technical measures in preference to inefficiencies and competitive distortions in governmental subsidies and thus attempts to avoid distortions in international trade and investment.[64]

74. The principle was originally intended to be applied by a State with regard to activities within its territory and was later extended by OECD in 1989 beyond chronic pollution caused by ongoing activities to cover accidental pollution. Accordingly, it was noted that "in matters of accidental pollution risks, the polluter-pays principle implies that the operator of a hazardous installation should bear the cost of reasonable measures to prevent and control accidental pollution from that installation which are introduced by public authorities in member countries in conformity with domestic law prior to the occurrence of an accident in order to protect human health or the environment".[65]

75. The members of the European Community have committed themselves to the polluter-pays principle. That commitment appears in the Single European Act of 1987 which amended the Treaty of Rome and granted the European Community for the first time the express power to regulate environmental affairs. The Act refers specifically to the polluter-pays principle as a principle governing such regulations and states that "action by the Community relating to the environment shall be based on the principle that preventive action should be taken, that environmental damage should as a priority be rectified at the source and that the polluter should pay."(Article 100 (r) 2). The European Community has also been applying the polluter-pays principle to the sources of pollution. For example, the Community has approved a directive which expressly instructed member States to impose the costs of waste control on the holder of waste and/or prior holders or the waste generator in conformity with the polluter-pays principle.[66]

76. The application of polluter-pays principle (and its costs) would involve both preventive as well as remedial measures. According to one commentator, in the United States, for example, if a source of accidental pollution is responsible for the restoration of the environment that responsibility is considered a measure for compensation for damage inflicted, not a preventive or protective measure. Such is also the case with remedial costs

---

[62] P. S. Rao, "Environment as a Common Heritage of Mankind: A Policy Perspective" in *International Law on the Eve of the Twenty First Century: Views from the International Law Commission* (United Nations publication, Sales No. E.97.V.4), p. 208.

[63] See Survey of liability regimes, op. cit. (footnote 46 above), para. 102.

[64] See Sandord E. Gaines, "The Polluter-Pays Principle: Free Market Equity to Environmental Ethos", *Texas International Law Journal*, vol. 26 (1991), p. 470.

[65] See the appendix to OECD recommendation C (89) of 7 July 1989, cited in "Survey of liability regimes ...", op. cit. (footnote 46 above), para. 107.

[66] Ibid., para. 112.

of hazardous waste clean-up.[67] The United States does not recognize the polluter-pays principle, even though it applies its main features in practice.[68]

77. The polluter-pays principle was adopted at the global level in 1992 as principle 16 of the Rio Declaration according to which:

> "National authorities should endeavour to promote the internalization of environmental costs and the use of economic instruments, taking into account the approach that the polluter should, in principle, bear the cost of pollution, with due regard to the public interest and without distorting international trade and investment."

78. Since then the principle has also gained increasing acceptance and has been used as a guiding concept in designing national environmental laws and regulations. While developed countries have implemented various economic instruments for several years, developing countries and countries with economies in transition are beginning to incorporate economic instruments into their national legislation.[69]

79. The Rio principle dealt with both costs of pollution and environmental costs, i.e., a set of costs broader than the costs of pollution prevention, control and reduction measures. The other costs to be considered in this regard are: (a) the costs of remedial measures (e.g., the clean-up and reinstatement of the environment if this is not covered by the words "reduction measures"); (b) the costs of compensatory measures (compensation to victims of damage); (c) the costs of "ecological" damage (compensation for damage to the environment in general, to the ecological system, compensation to public authorities for residual damage, fines for excessive pollution, etc.); and (d) the costs of pollution charges or equivalent economic instruments (tradable emission rights, pollution tax, eco-tax, etc.).[70]

80. Implementation of the polluter-pays principle has not been easy. In spite of their strong commitment to encourage the adoption of the principle in the national policies of various countries, and particularly in Europe, States have found various ways of justifying subsidy schemes by interpreting the polluter-pays principle according to their convenience.[71] In the context of OECD, during the last 20 years, subsidies have been given in order to facilitate the implementation of environmental policies to take account of existing pollutants, to avoid forcing polluting enterprises to close because of stringent environmental requirements. Most OECD member countries are still providing direct or indirect financial aid to polluters and few of them have decided that all pollution-related costs shall henceforth be borne by polluters. In Southern Europe, the European Community is providing a significant amount of subsidies to aid countries in their environmental policies, sometimes for the purpose of implementing existing directives which were adopted without any linkage to the availability of Community funds.

81. Accordingly, the problem of abuse in the application of the polluter-pays principle has become a matter of some concern. To deal with such abuse, prevention procedures were

---

[67] See Gaines, op. cit. (footnote 64 above), pp. 480-484.

[68] Survey of liability regimes, op. cit. (footnote 46 above), para. 114.

[69] Economic instruments used in national laws and regulations include deposit/refund schemes, pollution fines, eco-management systems and eco-labelling systems. The polluter-pays principle has also been implemented by various means, ranging from pollution charges, process and product standards to systems of fines and liabilities. See the report of the Secretary-General entitled "Rio Declaration on Environment and Development: application and implementation" E/CN.17/1997/8, paras. 87-90.

[70] See Henri Smets, "Polluter-Pays Principle in the Early 1990s", in L. Campiglio et al. *The Environment After Rio: International Law and Economics* (Graham and Trotman, 1994), p. 134.

[71] See "Survey of liability regimes", op. cit. (footnote 46 above), para. 113. See also report of the Secretary-General on application of the Rio Declaration, op. cit. (footnote 69 above).

developed within OECD. Thus, any Government which considers that a pollution control subsidy provided by another member country might introduce a significant distortion in international trade and investment may request that a consultation be initiated to establish whether assistance is in conformity with OECD guidelines. In the European Community, the Commission issued specific guidelines and can bring the case to the European Court of Justice which would examine whether the proposed subsidy is in conformity with article 92 of the Treaty of Rome and with other applicable texts. However, it is observed that no case of excessive subsidy in the area of pollution control was brought to the attention of the European Court of Justice or of OECD.[72]

82. There is thus a need for further clarity on various issues involved in the definition and application of the polluter-pays principle: clarification of the control costs to be borne by the polluter, valid exceptions to the polluter-pays principle, sharing of the pollution costs between the public bodies and polluters, and the most appropriate schemes and methods by which internalization could be achieved.

83. The application of the principle in a transboundary context could also give rise to several problems between the State of origin and the affected States. While in principle one might consider that costs of pollution control measures are to be carried out in the State of origin, exceptions could also be foreseen whereby such States could receive a subsidy to undertake pollution control measures.

84. The practice of OECD countries reveals that at the international level States very rarely pay for transboundary damage because it is up to the polluter to compensate the victims. Secondly, subsidies are very rare and polluting OECD members generally implement pollution control measures without any financial support from other member countries. There could however be some exceptions. Industrialized countries may subsidize developing countries. Even within the European Community, member States provide financial mechanisms to support other member States such as Greece, Spain, Ireland and Portugal. In the Arctic area, Scandinavian countries offer financial assistance to the Russian Federation. Similarly, such assistance was also provided to Eastern European countries to enhance the safety of Soviet-made nuclear reactors. Inter-State subsidies thus can also be used to overcome a historical situation detrimental to the environment.[73]

85. The practice is still evolving. Accordingly, it has been observed that "at present, it is difficult to know whether the polluter-pays principle is adhered to because there is too much uncertainty on what is allowed and what is forbidden concerning subsidies or other fiscal measures for the benefit of polluters inside industrialized countries and also among developed and less developed countries."[74] For these and other reasons, it was also observed that "the polluter-pays principle was introduced in numerous international agreements as a guiding principle or as a binding principle but in general the meaning of this principle was not specified".[75]

---

[72] Smets, op. cit. (footnote 70 above), p. 140.

[73] Ibid., pp. 141-144; see also Brownlie, *State Responsibility and International Pollution: A Practical Perspective*, cited in Daniel Barstow Magraw, "Legal Treatment of Developing Countries: Differential, Contextual and Absolute Norms", *Colorado Journal of International Environmental Law and Policy*, vol. 1 (1990), p. 83 (footnote 53).

[74] Smets, *idem*, p. 144.

[75] Ibid., p. 133. One example of this is the reference to the polluter-pays principle in the 1990 International Convention on Oil Pollution Preparedness, Response and Cooperation as "a general principle of international environmental law". See also the 1992 ECE Convention on the Transboundary Effects of Industrial Accidents, which takes into account that the polluter-pays principle is a general principle of environmental law.

86. Accordingly, Kiss considered the principle only as one of guidance for the economy and not a legal principle.[76] Sands noted that the polluter-pays principle has not achieved the broad geographic and subject-matter support that has been accorded to the principle of preventive action. He also noted that negotiations concerning principle 16 of the Rio Declaration indicated that a number of States, both developed and developing, would like to see these principles adopted only at the domestic level but not to apply to or govern relations or responsibilities between States at the international level.[77] Edith Brown Weiss also shared this view and stated that the polluter-pays principle "does not translate easily into the principle of liability between States".[78]

C. The principles of equity, capacity-building and good governance

87. In the context of the development of international environmental law at Rio de Janeiro in 1992, the question of giving suitable priority to the interests and limitations of developing countries was given specific consideration. While a number of principles included in the Rio Declaration exhibited a sensitivity to the aspirations, needs and limitations of developing countries, difficulties remained in reconciling the special needs of developing countries with the need to develop a universally applicable legal regime. Several ideas concerning intra-generational and inter-generational equity, capacity-building and good governance were discussed in this context.

1. Intra-generational equity

88. To put this matter in perspective, it is necessary first to recall briefly the special circumstances of developing countries. According to a recently published survey of the United Nations, it is predicted, based on certain assumptions, that the world population would grow to 9.4 billion by 2050 and would stabilize at around 11 billion by 2200. In contrast, in 1995, the world population stood at 5.7 billion.[79] While Europe will see a declining trend in population growth by about 18 per cent from 728 million in 1995 to 595 million by 2150, the population in the United States and Canada will grow from 297 million in 1995 to 424 million by 2150. Further, the population in Asia, Africa and Latin America would also register a substantial increase from 1995 to 2150. Accordingly, Africa would see a growth from 0.7 to 2.8 billion, China would grow from 1.2 to 1.6 billion, India from 0.9 billion to 1.7 billion and Latin America and the Caribbean would grow from 477 million

[76] Alexander Kiss, "The Rio Declaration on Environment and Development", in L. Campiglio et. al.,op. cit. (footnote 70 above), p. 61.

[77] Phillippe Sands, "International Law in the Field of Sustainable Development: Emerging Legal Principles", in Winfield Lang (ed.), *Sustainable Development and International Law* (London, Graham and Trotman/Martinus Nijhoff, 1995), p. 66.

[78] Edith Brown Weiss, "Environmental Equity: The Imperative for the 21st Century" in ibid., p. 21.

[79] See the projection made by the United Nations Population Division, based on a medium-fertility rate of two children per woman. *The Hindu* (New Delhi), 8 February 1998, p.7.

to 916 million.[80] The enormous growth in population in the developing world must also be seen against the background of persistent poverty levels there.[81] In other words, unless miracles occur, much of this population in the developing world would live at the edge of poverty and would continue to confront a gap between the poor and the rich in terms of living standards. The priorities for the Governments of developing countries will continue to be providing food, clothing, shelter, minimal literacy and health standards through safe drinking water, sanitation facilities and primary health centres for their massive populations. While some attention will have to be paid to the liberalization of national trade policies and the globalization of trade, attracting investments and improving the infrastructure facilities for industry, these Governments would still have to allocate their limited resources on a priority basis to providing employment and fulfilling the other minimum vital needs of their population.

89. In addition to the above, it is also well known that the means of production and technologies at the disposal of developing countries are inefficient as well as environmentally unfriendly.

90. In these circumstances, the first question that arises in the context of promoting sustainable development is how to bridge the gap between developed and developing countries on the one hand and between rich and poor within countries on the other. The latter question should largely be addressed in the context of good governance, while the former question should be addressed in the context of equity, particularly intra-generational equity.

91. Intra-generational equity has several implications for the South.[82] It would mean, first, that the developmental needs of the South should continue to receive priority in any effort to promote a better global environment. Secondly, any regime providing for the protection of the environment should yield in favour of the South adequate environmental space for its future development. There is thus a need to enable developing countries to continue to utilize the technology available to them until they are in a position to acquire or develop more environmentally friendly technology. In other words, it is the view of the South that the North, with consumption levels at 80 per cent and only 20 per cent of the world's population, should not pre-empt high levels of global environmental space capable of absorbing pollution. Thirdly, developing countries must be given sufficient room within the current environmental constraints to develop rapidly enough to meet the needs and aspirations of their growing population by securing the necessary resources, technology and access to the markets of the world. This underlines the fact that the South can only achieve environmentally sound protection, development and lifestyle through the attainment of economic growth and development.

---

[80] Ibid.

[81] While it is understandable that there will be differences of opinion as to how to measure and conceptualize poverty, it has been suggested that, according to the criterion of "calorie consumption" – the prevailing measure of poverty in India – a daily calorie consumption of under 2,100 among urban dwellers and less than 2,400 in rural areas is a mark of poverty. Thus, in India alone, while the rural poverty level of 57.79 per cent in 1977-1978 decreased slightly to around 57.4 per cent in 1993-1994, in the urban sector the 1977-1978 level of 49.28 per cent rose to 65.4 per cent in 1993-1994. See S. P. Gupta, "Poverty and Statistics", *The Hindu*, (New Delhi), 28 February 1998, p. 10.

[82] On the general question of role of equity, see Oscar Schachter, *International Law in Theory and Practice*(London, Martinus Nijhoff, 1991), pp. 52-65. See also Thomas M. Franck and Dennis M. Sughrue, "The International Role of Equity-as-Fairness", *The Georgetown Law Journal*, vol. 81 (1993), pp. 563-595. For an analysis of the positions taken by the South at the Rio Conference, see Chris K. Mensah, "The Role of the Developing Countries", in L. Campiglio et al., op. cit. (footnote 70 above), p. 36.

92. In view of the concerns thus expressed, principles 1, 3, 4, 5, 6, 7, 11 and 25 of the Rio Declaration reflect the interests of developing countries and the equities involved.[83] The important point of intra-generational equity is to avoid economic development taking place in all countries "on the environmental backs of the poor communities".[84] Application of the principle of equity could involve the development of a differential and contextual norm in the evolving and interconnected areas of economic development, human rights and environmental protection / resources management law. On the basis of an examination of some relevant treaty regimes and other declarations and State practice, according to one observer, when fashioning international environmental norms, there is arguably an existing, general, customary obligation, stemming primarily from State practice in those three areas, to take the effect on sustainable development in developing countries into account, in order to foster, or at least avoid unduly interfering with such development and in order to ensure that the resultant norms are not impossible to comply with. Similarly, it may be argued that developed countries have a duty under customary law to assist developing countries in meeting international environmental norms relating to the progressive realization of international human rights.[85]

2. Inter-generational equity

93. The principle of inter-generational equity is of more recent origin. The 1972 Stockholm Declaration referred to inter-generational equity in principles 1 and 2.[86] Thereafter,

---

[83] Principle 1 emphasized that human beings are at the centre of concerns for sustainable development. Principle 3 noted that the right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations. Principle 4 aimed at achieving sustainable development and making environmental protection an integral part of the development process. Principle 5 required States to cooperate in the essential task of eradicating poverty as an indispensable requirement for sustainable development. Principle 6 required special priority to be given to the special situation and needs of developing countries, particularly the least developed and those most environmentally vulnerable. Principle 7 dealt with common but differentiated responsibilities. Principle 11 noted that, while environmental standards and management objectives and priority should be developed, standards applied by some countries may be inappropriate and of unwarranted economic and social cost to other countries, in particular developing countries. Finally, principle 25 underlined that peace, development and environmental protection are interdependent and indivisible. For an analysis of these principles see the report of the Secretary-General on application of the Rio Declaration, op. cit. (footnote 69 above).

[84] See Brown Weiss, op. cit. (footnote 78 above), p. 17. It has been observed that the proposition on environmental justice advanced by Prof. Brown Weiss addressed the deep structure of the international legal order and would have to be understood in the context of the process of fundamental change or development, as one wished, of the international legal order beginning with decolonization and continuing with the so-called new international economic order process. Konrad Ginther, "Comment on the Paper by Edith Brown Weiss", ibid., pp. 29-33.

[85] See Magraw, op. cit. (footnote 73 above), p. 99.

[86] Principle 1 of the Stockholm Declaration read as follows:

"Man has the fundamental right to freedom, equality and adequate conditions of life, in an environment of a quality that permits a life of dignity and well-being, and he bears a solemn responsibility to protect and improve the environment for present and future generations. In this respect, policies promoting or perpetuating apartheid, racial segregation, discrimination, colonial and other forms of oppression and foreign domination stand condemned and must be eliminated".

And according to principle 2:

"The natural resources of the earth, including the air, water, land, flora and fauna and especially representative samples of natural ecosystems, must be safeguarded for the benefit of present and future generations through careful planning or management, as appropriate."

references were made to the principle of intergenerational equity in several multilateral conventions.[87]

94. The Experts Group on Environmental Law of the World Commission on Environment and Development, which reviewed the merits of providing for the principle of inter-generational equity, recommended that States should "ensure that the environment and natural resources are conserved and used for the benefit of present and future generations".[88] This principle later found its place in the context of sustainable development. Thus principle 3 of the Rio Declaration reads as follows: "The right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations".[89]

95. In the context of inter-generational equity, the environment is viewed more as a resource base for the survival of present and future generations. It has been observed that a two-fold duty flows from this principle.[90] First, States have a basic duty to conserve options for future generations by way of trust by maintaining to the maximum extent possible the diversity of the natural resource base (a protective element). The second obligation concerns the prevention or abatement of pollution or other forms of degradation of natural resources or the environment which would reduce the range of uses to which the natural resources or environment could be put or which would confront future generations with enormous financial burdens to clean up the environment. It is this second obligation which is more relevant in the context of our consideration of the principle of prevention.

96. The principle of inter-generational equity is also mentioned in the 1996 Istanbul Declaration on Human Settlements and the Habitat Agenda, which states that "in order sustain our global environment ... we commit ourselves to ... the preservation of opportunities for future generations ..."[91] Moreover, the United Nations Framework Convention on Climate Change refers to this principle in article 3, paragraph 1, as does the Convention on Biological Diversity in its last preambular paragraph.[92] In spite of such

---

[87] Some of the relevant Conventions are: the 1972 Paris Convention concerning the Protection of World Cultural and Natural Heritage; the 1973 Washington Convention on International Trade in Endangered Species of Wild Fauna and Flora; the 1976 Barcelona Convention for the Mediterranean Sea; the 1976 Apia Convention on the Conservation of Nature in the South Pacific; the 1977 Geneva Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques; the 1978 Kuwait Regional Convention; the 1979 Berne Convention on the Conservation of European Wildlife and Natural Habitats; the 1983 Cartagena de Indias Convention for the Wider Caribbean Region; and the 1985 ASEAN Agreement on the Conservation of Nature and Natural Resources. Article 30 of the Charter of the Economic Rights and Duties of States, General Assembly resolution 36/7 of 27 October 1981 on the historical responsibility of States for the preservation of nature for present and future generations and the World Charter for Nature have also made reference to the principle of inter-generational equity.

[88] Article 2 of the General Principles concerning Natural Resources and Environmental Interferences, *Environmental Protection and Sustainable Development*, op. cit. (footnote 31 above), pp. 42-45.

[89] For a review of the principle, see report of the Secretary-General on application of the Rio Declaration op. cit. (footnote 69 above), paras. 24-28.

[90] See *Environmental Protection and Sustainable Development*, op. cit. (footnote 31 above), p. 43.

[91] A/CONF.165/14, chap. I, resolution I, annex I, para. 10.

[92] Article 3, paragraph 1, of the Framework Convention on Climate Change states: "The Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities. Accordingly, the developed country Parties should take the lead in combating climate change and the adverse effects thereof." The last preambular paragraph of the Convention on Biological Diversity reads: "Determined to conserve and sustainably use biological diversity for the benefit of present and future generations". (A/AC.237/18(Part II)/Add.1.)

references to this principle in many international conventions and in other contexts,[93] the specific content thereof is not entirely clear. It has been pointed out that "the nature and the extent of the right is left open, as is the question of whether such a right attaches to States, peoples or individuals".[94] To the extent that the principle is linked to the right to development, its implementation raises its own difficulties. In spite of doctrinal and conceptual problems, the right to development is gaining ground as an essential attribute of human rights and the general principle of equity.[95]

97. In an effort to clarify the content of the principle of inter-generational equity, it has been suggested that the following steps may be taken:[96]

(a) Requiring present generations to use their resources in a way that protects the sustainable development of future generations;

(b) Committing to the long-term protection of the environment;

(c) Ensuring that the interests of future generations are adequately taken into account in policies and decisions relevant to development;

---

[93] The haziness of its content did not deter the invocation of this principle in international jurisprudence. See the separate opinion of Judge Weeramantry in the case of the *Maritime Delimitation in the Area between Greenland and Jan Mayen*. See also his dissenting opinion in the *Nuclear Tests (New Zealand v. France) Case* (*I.C.J. Reports 1995*, p. 288) where he observed that the concept of inter-generational rights is an important and rapidly developing principle of contemporary environmental law (ibid., p. 341). The Supreme Court of the Philippines has granted standing to 42 children as representatives of themselves as a future generation to protect their right to a healthy environment (The Children's Case) (see Judgement of 30 July 1993, *Juan Antonio Oposa et al. v. the Honorable Fulgencio Factoran, Jr., Secretary of the Department of the Environment and Natural Resources et al.*, Supreme Court of Philippines, G. R. No. 101083). See also *M. C. Mehta v. Union of India and others*, IAR 1988 Supreme Court (public interest litigation to prevent tanneries, which were polluting the River Ganga, from operating until they installed primary effluent treatment plant). See for this and other cases *Compendium of Summaries of Judicial Decisions in Environment-related Cases* (with special reference to countries in South Asia) SACEP, UNEP NORAD Publication Series on Environmental Law and Policy, No. 3, 1997.

[94] Report of the Secretary-General on application of the Rio Declaration, op. cit. (footnote 69 above), para. 24. For a similar view, see also Sands, op. cit. (footnote 1 above), p. 200. Another commentator has lamented that future generations were not effectively represented in the decision-making process today though decisions we take today would determine their welfare. See E. B. Weiss, "Intergenerational Equity: a Legal Framework for Global Environmental Change", in Edith Brown Weiss (ed.), *Environmental Change and International Law: New Challenges and Dimensions* (1992), pp. 385 and 410-412. The same commentator also accuses the present generation of being biased in favour of itself. See Brown Weiss, "Environmental Equity", op. cit. (footnote 78 above), p. 22.

[95] On the questions raised by the right to development, see M. Bulajic, *Principles of International Development Law* (Martinus Nijhoff, 1986); David P. Forsythe (ed.), *Human Rights and Development* (London, Macmillan, 1989); Kamal Hossain and Subrata Roy Choudhury (ed.), *Permanent Sovereignty over Natural Resources* (London, Frances Pinter, 1984); Myres S. McDougal, Harold Lasswell and Lung Che-Chen, *Human Rights and World Public Order: The Basic Policies of International Law of Human Dignity* (New Haven, Yale University Press, 1980); A Peter Mutharika, "The Principle of Entitlement of Developing Countries to Development Assistance", in UNITAR, *Progressive Development of the Principles and Norms of International Law relating to the New International Economic Order*, UNITAR/DS/6, pp. 154-236. For an analysis of the text of instruments relevant to this principle, see ibid., pp. 237-351; M. Lachs, "The Right to Development", in 1979 *Hague Colloquium* 13 (1980); R. Rich, "The Right of Development as an Emerging Human Right", *Virginia Journal of International Law*, vol. 23 (1983), pp. 305-306; I. Haq, "From Charity to Obligation: A Third World Perspective on Confessional Resource Transfers", *Texas International Law Journal*, vol. 14 (1979), p. 389. See also M. Gandhi, *Right to Development in International Law: Prospects and Reality* (1991) (thesis submitted to the University of Madras for the award of degree of Doctor of Philosophy, available on file with the Special Rapporteur).

[96] Final Report of the Expert Group Workshop, op. cit. (footnote 37 above), annex I, p. 13.

(d) Avoiding and, if need be, redressing disproportionate environmental harm from economic activities;

(e) Ensuring a non-discriminatory allocation of current environmental benefits.

98. Many imaginative proposals have been put forward by commentators regarding an implementation strategy. According to one view, the rights of future generations might be used to enhance the legal standing of members of the present generation to bring claims on behalf of the former, by relying on substantive provisions of environmental treaties where doubts exist on the implementation of rights created and obligations enforceable by individuals.[97] Another commentator felt that reliance on the liability doctrine failed to address the external realities and to ensure equitable use; she therefore advocated a preventive approach to implement the principle of inter-generational equity.[98] It is evident that the pollution prevention approach reflects a growing willingness to relate the present to the future in the formulation of legal norms. Prevention of pollution from nuclear reactors which affects the ability of future generations to use natural resources and prevention of pollution to biological resources, water and soils would also help promote inter-generational equity.[99]

3. Capacity-building

99. Compliance with international environmental obligations in general and with obligations concerning the prevention of transboundary harm in particular involves the capacity of a State to develop appropriate standards and to bring more environmentally friendly technologies into the production process as well as the necessary financial, material and human resources to manage the process of development, production and monitoring of the activities. There is also a need to ensure that risk-bearing activities are conducted in accordance with applicable standards, rules and regulations and that the jurisdiction of courts may be invoked in respect of violations to seek necessary judicial and other remedies. Many developing countries are just beginning to appreciate the ills of pollution and unsustainable developmental activities. It has therefore been rightly pointed out that compliance with international environmental obligations requires resources, including technologies and technical expertise, that are not readily available, particularly in developing countries. A "spirit of global partnership"[100] is therefore recommended to enable developing countries and countries in transition to discharge the duties involved, in their own self-interest as well as in the common interest. Such a global partnership could entail, as in the case of some specific international environmental treaties, offering financial support through the development of common funds, facilitating the transfer of appropriate technology on fair and equitable terms[101] and providing necessary training and technical assistance.

---

[97] See Sands, op. cit. (footnote 1 above), pp. 158-163 and 200. Brown Weiss also supports the proposal on the designation of ombudsman for future generations or the appointment of commissioners for future generations. Brown Weiss, "Intergenerational Equity", op. cit. (footnote 94 above), pp. 410-412.

[98] Brown Weiss, "Environmental Equity", op. cit. (footnote 78 above), p. 22. It was also suggested that this principle could comprise three components: comparable options defined as conserving the diversity of natural and cultural resources; comparable quality; and comparable or non-discriminatory access to the benefits of the environmental system. E. Brown Weiss, "Environmental Equity and International Law", in Sun Lin and Lal Kurukulasuriya, op. cit. (footnote 7 above), p. 15.

[99] Brown Weiss, in Sun Lin and Lal Kurukulasuriya, ibid., p. 14.

[100] See *Final Report of the Expert Group Workshop*, op. cit. (footnote 37 above), para. 14.

[101] The problem of transfer of technology was a matter of intensive study in different forums. For one such study prepared in the context of the development of the law relating to the new international economic order, see Augusto-Caesar Espiritu, "The Principle of the Right of Every State to Benefit from Science and Technology", in UNITAR, op. cit. (footnote 95 above) pp. 1-152. For a review of the obligation of

100. Transfer of technology and scientific knowledge would require overcoming several well-known complications affecting such transfer, namely, restrictive practices of suppliers of technology, deficiencies in the bargaining process between the suppliers of technology and the developing countries and reallocation of a greater share of productive capacity to the developing countries.[102] What is also required is technology transfer which takes into account the conditions prevailing in developing countries. Dissemination and transfer of scientific knowledge gives rise to problems governed by the law relating to patents and copyrights. It is admitted that transfer of technology and scientific knowledge should be undertaken under proper legal arrangements and regimes. Further, such transfer should be at a fair and reasonable cost. However, given the limited resources and urgent priorities of development, developing countries must be helped by the international community to acquire appropriate technology and scientific knowledge. For this purpose, international funding mechanisms and technical training programmes could be established. Such capacity-building of developing countries would be in the common interest of all States as it would promote greater compliance with duties of prevention.[103]

101. Apart from the need for international transfer of resources and technology and technical skills to developing countries and countries in transition, capacity-building would involve addressing and remedying numerous weaknesses, deficiencies and difficulties such as: weak or inadequate legislation, the lack of political influence of environmental authorities, low public awareness, lack of well-established target groups which represent specific interests, the lack of managerial skills and inadequate information bases. Strengthening institutional capabilities would imply decentralization and delineation of structures of authority and power between the federal and state Governments and between the state and the local authorities or municipalities; establishment of data centres, expert consultative bodies and monitoring bodies to improve enforcement and compliance with environmental permits, licences and EIA requirements; halting activities which violate environmental regulations; and ensuring preparedness measures for environmental emergencies. In addition, multidisciplinary, integrated research programmes should be promoted to better understand pollution transfer mechanisms, to apply the ecosystem approach to environmental management as well as to develop low- and non-waste technology. Continuous training for environmental administrators at all levels should be organized with particular attention to building and improving skills and knowledge of environmental law, environmental economics, environmental impact and risk assessment and auditing as well as conflict-resolution techniques.[104]

102. Agenda 21 envisaged a concerted and coherent approach linking a number of the above components to promote endogenous capacity-building. Environmental legislation touching

---

transfer of technology incorporated in the United Nations Convention on the Law of the Sea, see D. Yarn, "The Transfer of Technology and UNCLOS III", *Georgia Journal of International and Comparative Law*, vol. 14 (1984), p. 138.

[102] For a discussion of these and other issues concerning technology sharing, see Oscar Schachter, *Sharing the World's Resources* (New Delhi, Allied Publishers, 1977), p. 107.

[103] Despite the existence of profound differences about the allocation of goods and costs which are manifest in the negotiations about laws of competition, restrictive practices, patents, dispute settlement and *ordre public* in transnational contracts, States are moved by imperatives of justice and agree to principles of fairness through motives of: conscience, particularly when appeals are made on the basis of firm data and fundamental principles of legitimacy; interdependence; and a shared commitment to democratic, open and discursive processes not only within but among States. See T. M. Franck, "Fairness in the International Legal and Institutional System: General Course on Public International Law", pp. 9-498, *Recueil des cours ... 1993-III*, vol. 240, pp. 440-441.

[104] For an elaboration of these and other considerations, see *Guidelines on Integrated Environmental Management in Countries in Transition* (United Nations publication, Sales No. 94.II.E.31), pp. 3-7.

upon various sectors of development-related activities has an important contribution to make towards promoting the capacity of a State to prevent transboundary harm.[105] In order for environmental law to become sound and effective it must be implemented through appropriate administrative and institutional practices and by the establishment of specialized tribunals dealing with environmental law matters or cases.[106]

4. Good governance

103. Several of the above requirements for enhancing the capacity of States to meet their duties of prevention culminate in the need for the maintenance of good governance to sustain the absorption of the inputs made and to profit therefrom so as to further improve such governance. Good governance is said to comprise the rule of law, effective State institutions, transparency and accountability in the management of public affairs, respect for human rights and the meaningful participation of all citizens in the political processes of their countries and in decisions affecting their lives.[107] It has also been stated that improving and enhancing governance is an essential condition for the success of any agenda or strategy for development. Improved governance could mean ensuring the capacity, reliability and integrity of the core institutions of the modern State. It could also mean improving the ability of government to carry out governmental policies and functions, including the management of implementation systems.[108]

104. Good governance in effect comprises the need for the State to take the necessary legislative, administrative or other actions to implement the duty of prevention, as noted in article 7 of the draft approved by the Working Group of the Commission in 1996.[109] The requirement of taking the necessary measures imposed upon the State by way of good governance does not entail its becoming involved in all the operational details of the hazardous activity, which are best left to the operator himself. Thus, where these activities are conducted by private persons or enterprises, the obligation of the State is limited to establishing an appropriate regulatory framework or machinery to ensure effective implementation of the legal regime established by the State itself in accordance with its national legislation. Such a framework could be a matter of ordinary administration in most

---

[105] In pursuit of these various objectives, UNEP's capacity-building programmes are based upon several fundamental considerations and have been organized in the area of national legislation and institutions, and of participation in the international legislative process, as well as with respect to specific target groups. UNEP programmes in capacity-building are conducted in association and collaboration with several agencies and bodies of the United Nations system as well as international organizations and universities and professional bodies. For an elaboration of these themes, see Donald Kaniaru and Lal Kurukulasuriya, "Capacity-building in Environmental Law", in Sun Lin and Lal Kurukulasuriya, op. cit. (footnote 7 above), pp. 171-183.

[106] Referring to the situation of environmental problems in India and particularly those affecting mega-cities such as Delhi, Krishna Iyer, a distinguished former Supreme Court Judge of India, noted that "Delhi has the notoriety of being the fourth most polluted city in the world, not because of statutory starvation but of law-enforcing lassitude". In this connection, he reviewed the National Environmental Tribunal Act, which proposes to establish special environmental tribunals in India; see V. R. Krishna Iyer, "Environmental Tribunal - I, II", *The Hindu* (New Delhi), 5 and 6 February 1998.

[107] See "Report of the Secretary-General on the Work of the Organization", *Official Records of the General Assembly, Fifty-second session, Supplement No. 1* (A/52/1), para. 22.

[108] See the report of the Secretary-General entitled "An Agenda for Development", A/48/935, paras. 125-126.

[109] *Official Records of the General Assembly, Fifty-first session, Supplement No. 10* (A/51/10), p. 239.

cases, and in the case of disputes, the relevant courts or tribunals should be established to provide for speedy and efficient legal remedies.[110]

105. In developing a national legislation, it has been found convenient to first construct an umbrella or a framework environmental law which lays down the basic legal principles without attempting to codify all relevant statutory provisions. Such legislation contains a declaratory statement of national environmental goals, establishes institutions for environmental management and provides for decision-making procedures, licensing and enforcement, planning and coordination, and dispute resolution, among other environmental management mechanisms.[111] Framework legislations usually call for further supplementing legislations and rules and regulations. Moreover, the aim of an environmental legislation should be to develop long-term management of threatened resources, conservation of scarce resources and prevention of degradation of renewable resources. In the context of the prevention of transboundary harm, such legislation should also provide for adequate safeguards to take into account the environmental needs of neighbouring States in regulating an activity where significant harm to such interests is possible or evident.

106. An examination of the requirement of adopting appropriate measures and suitable legislation indicates that, by way of good governance, States must: attempt to avoid the creation and operation of a multiplicity of laws and institutions; provide for coordination among institutions at the national, regional or local level; ensure strict enforcement of national laws and policies with the support of necessary infrastructure and resources, eliminating corruption and extraneous influences; recognize public interest; adopt integrated and holistic legislation and policy; and avoid ad hoc administrative decisions.[112] It is also recommended that statutory authorities be established as a central agency supported by enforcement, regulatory and intervention powers to deal with prevention of harm and protection of the environment. The legal independence of the agency should be enhanced by financial independence. Such an agency should be designed as an empowering institution, that is, its powers should strengthen existing institutions, while at the same time it should provide a focal point for strategic alliance at the local level.[113]

107. In addition, in the context of the prevention of transboundary harm, neighbouring States and States of the region should attempt to harmonize national laws, standards and other procedures concerning the operation of hazardous activities. This is highly necessary in order to have a more uniform and voluntary implementation of the duties of prevention involved and to avoid any differences in opinion or disputes which might otherwise arise.[114]

---

[110] Sreenivasa Rao Pemmaraju, "International Liability Arising Out of Acts not Prohibited by International Law: review of the Current Status of the Work of the International Law Commission", in Asian-African Legal Consultative Committee, *Essays on International Law. Fortieth Anniversary Commemorative Volume, 1997*, p. 102.

[111] See Donald Kaniaru, Manjit Iqbal, Elizabeth Mrema and Siraj Chowdhury, "UNEP's Programme of Assistance on National Legislation and Institutions" in Sun Lin and Lal Kurukulasuriya, op.cit. (footnote 7 above), p. 161.

[112] See Herbert, op.cit. (footnote 9 above), p. 1214.

[113] Ibid., pp. 1215-1217.

[114] In order to help common understanding, and wherever applicable to develop internationally acceptable units and standards in transboundary EIA, the International Organization for Standardization (ISO) and the European Committee for Standardization (CEN) have been focusing on such items as: sampling and monitoring methods, descriptive units (for example, micro g/m^3 for air quality), spatial and temporal scales control (e.g., volume of soil samples) and criteria for data quality control. It seems necessary to enlarge the scope of ongoing standardization activities. See Current Policies ..., op.cit. (footnote 4 above), p. 50.

108. Public participation is an essential requirement of good governance. Keeping this in view, article 15 of the draft approved by the Working Group in 1996 states that States shall, whenever possible and by such means as appropriate, provide their own public likely to be affected by a hazardous activity with information relating to the activity, on the risk involved and the harm which might result and ascertain their views. This recommendation takes into consideration principle 10 of the Rio Declaration, which provides for public involvement in such decision-making processes. A number of other instances where such public participation is encouraged were also noted by the Working Group.[115]

109. The "public" includes individuals, interest groups (including non-governmental organizations) and independent experts. By "general public" is meant individuals who are not organized into groups or affiliated to specific groups. Public participation could be encouraged by holding public meetings or hearings which are announced in newspapers, radio and television. The public should be given opportunities for consultation and their participation should be facilitated by providing them with the necessary information on the proposed policy, plan or programme which is likely to have significant transboundary effects. However, requirements of confidentiality may affect the extent of public participation during the assessment process. Moreover, the public is frequently not involved or only minimally involved in efforts to determine the scope of a policy, plan or programme, EIA, or in the review of a draft document. Its participation is useful, however, in obtaining information regarding concerns related to the proposed action, additional alternatives and the potential environmental impact.[116]

110. Apart from the desirability of encouraging public participation in national decision-making on vital issues regarding development and the tolerance levels of harm in order to enhance the legitimacy of and compliance with the decisions taken, it is suggested that, given the development of human rights law, public participation could also be viewed as a growing right under national law as well as international law. However, it has also been noted that, "while norm specification is likely to continue in this, as in most areas of international law, the future emphasis needs to be on monitoring, and especially on the unresolved problem of enforcing compliance with the norms that already exist".[117]

---

[115] *Official Records of the General Assembly, Fifty-first session, Supplement No. 10* (A/51/10), pp. 302-304.

[116] Application of Environmental Impact Assessment Principles ..., op.cit. (footnote 7 above), pp. 4 and 8. The World Bank recognizes that when a country's environmental problems are addressed, the chances of success are greatly enhanced if the local citizens are involved in efforts to manage pollution and waste. The Bank's rationale is based on four premises: First, local citizens are often better equipped than government officials in identifying priorities for action. Secondly, members of local communities often have knowledge of cost-effective solutions that are not available to the Government. Thirdly, its often the motivations and commitment of communities that see an environment project through to completion. Fourthly, citizen involvement can help build constituencies for change. See K. John Mammen, "A New Wave in Environmentalism", *The Hindu* (open page), 17 March 1998, p. 21.

[117] See Franck, op.cit. (footnote 100 above), p. 110. See also Donna Craig and Diana Ponce Nava, "Indigenous Peoples' Rights and Environmental Law", in Sun Lin and Lal Kurukulasuriya, op.cit. (footnote 7 above), pp. 115-146.

Part Three
Conclusions

111. Until 1992, the International Law Commission had been developing the concept of prevention as part of its work on international liability for injurious consequences arising out of acts not prohibited by international law. The concept thus developed indicated some duties that are essentially projected as obligations of conduct. Accordingly, the duties of prevention would oblige States to identify activities that are likely to cause significant transboundary harm and to notify the same to the concerned States. The duty of notification would naturally give rise to duties of consultation and negotiation. However, such duties would not involve any right of veto for other States in respect of activities to be undertaken within the territory of a State. Moreover, these duties also would not oblige States to agree on a regime invariably in every instance where risk of such significant transboundary harm is involved.

112. However, a State in whose territory a risk-bearing activity is planned is obliged because of the duty of prevention to undertake measures of prevention on its own, that is, unilateral measures of prevention, if there is no agreement between that State and the States likely to be affected. Such measures of prevention would involve the duty of due diligence or standards of care as are proportionate to the risk involved and the means available to the State concerned. The standard of due diligence could vary from State to State, from region to region and from one point in time to another.

113. Under the scheme developed, in the absence of harm, failure to perform the duties of prevention, as proposed, or non-compliance with obligations of conduct would not give rise to any legal consequences. However, such failure could give rise to some adverse inferences in respect of the State of origin or other entities involved, when the claim for reparation as part of liability was under consideration.

114. The concept of prevention thus developed has been generally endorsed. Some reservations were however expressed emphasizing the need to develop better guarantees for implementation of the duties of prevention.

115. The present effort of the Commission to separate the regime of prevention from the regime of liability provides it with an opportunity to take a fresh look at the question of consequences to be attached to the failure to comply with duties of prevention. For this purpose, it would be necessary to distinguish duties of prevention attached to the State from duties attached to the operators of risk-bearing activities.

116. Failure of duties of prevention attached to the State could be dealt with at the level of State responsibility or even as a matter of liability without attaching a taint of wrongfulness to or prohibiting the activity itself. The latter is the option adopted by the Commission so far. It could be endorsed, given the desirability of respecting the freedom of a State and the sovereignty it enjoys over its territory and resources in undertaking necessary developmental and other beneficial activities, irrespective of their adverse side effects, if suitable alternatives are not available. However, if there is strong support, the Commission could move the matter of consequences into the field of State responsibility.

117. In contrast, failure of the operator to comply with duties of prevention would and should attract the necessary consequences prescribed in the national legislation under which authorization is sought and given. Mostly they are civil penalties and, in extreme cases, entail cancellation of the permission to carry on the activity.

118. The various duties of prevention identified as principles of procedure and content are duties States are expected to undertake willingly and voluntarily, as their application would be in their own interest. A review of the principles amply showed that State practice in implementation is both evolving and flexible. Further, States have been showing a considerable degree of pragmatism by often not insisting on their rights but encouraging other States and operators and helping them to meet their obligations through incentives and application of economic instruments. Even though there has so far been some laxity on the part of States to meet their obligations in contributing to international funds established for enhancing the capacity of developing States to enable them to better meet their obligations, no doubt is cast upon the nature of the obligation itself.

119. The need to give due consideration to the needs, special circumstances and interests of developing countries in developing a regime of prevention is fully established. Such consideration is necessary while prescribing standards of care and in enabling such States to apply and enforce those standards. The case of States which are capable of showing sensitivity to the obligations established or undertaken but do not do so is admittedly different from those States which are willing but unable to implement them for good reason or for reasons beyond their control. The application of various principles of procedure and content noted as part of the concept of prevention would no doubt require a considerable amount of international cooperation, time and effort for them to acquire concrete shape and a firm base necessary for universal implementation.

120. The recommendations made by the Working Group of the Commission in 1996 cover many of the principles that form part of the concept of prevention. The Commission would be in a position to review their content and to take a decision on their inclusion in the regime of prevention it wishes to endorse, once it approves the general orientation and analysis of the content of the concept of prevention.